LISTING OF CLAIMS:

Claim 1. (original): An apparatus for manufacturing products from a material which is at least thermoplastically deformable, as from plastic, comprising:

- a mold with at least one mold cavity;

- wherein in the or each mold cavity at least one moveable part, to be called slide, is provided;

- movement means for moving the or each slide;

- closing means for opening and closing the mold such that the or each mold cavity is released or closed, respectively;

- feed means for introducing, with the mold cavity closed, said material in at least substantially plastic condition into the or each mold cavity;

- wherein the movement means for moving the slide are arranged for moving said slide forward in the mold cavity at a relatively high speed relative to the movement speed of the mold parts upon their opening and closing, from a position at least partly retracted from the mold cavity, such that, as a result, said material is displaced in the mold cavity for obtaining the filling thereof, preferably at a speed high such that adiabatic heat development occurs in the or each mold cavity.

Claim 2. (original): An apparatus according to claim 1, wherein the closing means are at least substantially included in the mold.

Claim 3. (original): An apparatus according to claim 2, wherein the closing means further comprise blocking means for holding the mold in closed position.

Claim 4. (currently amended): An apparatus according to Claim 1 ~~any one of the preceding claims~~, wherein the movement means comprise cooperating elements, at least one element of which is at least partly wedge-shaped, the arrangement being such that upon movement of

one of the elements in a first direction, an element cooperating therewith and/or a slide connected thereto is moved in a second direction.

Claim 5. (currently amended): An apparatus according to Claim 1 ~~any one of the preceding claims~~, wherein the mold cavity comprises at least one forming part for forming a thin-walled product part, while at least one slide is provided in or adjacent said forming part and which has a direction of movement including an angle with a plane parallel to said small wall thickness of said product part, in particular an angle between 30 and 90°, while, with the slide in a first, retracted position said product forming part defines a relatively large passage and in a second, extended position, defines a passage which corresponds to the cross section of the thin-walled product part to be formed.

Claim 6. (original): An apparatus according to claim 5, wherein the passage, with the slide in the second position, is at least partly smaller than matching the melt-flow index (MFI) of a plastic to be introduced during use while, with the slide in the first position, the passage is considerably greater than matching said MFI.

Claim 7. (currently amended) An apparatus according to Claim 1 ~~any one of the preceding claims~~, wherein the feed means are arranged for introducing the material into the mold at a relatively low pressure considered in proportion to a required injection pressure when using a comparable mold without slides for forming a similar product from the same material.

Claim 8. (currently amended): An apparatus according to Claim 1 ~~any one of the preceding claims~~, wherein the or each slide, viewed in direction of movement, has a frontal surface which is relatively large with regard to the projected surface of the mold cavity viewed in said direction of movement.

Claim 9. (original): An apparatus according to claim 8, wherein said frontal surface is more than 50% of said projected surface, in particular more than 75%, more in particular more than 85% and preferably between 90% and 100%.

Claim 10. (original): A method for forming plastic products, wherein in a mold cavity an amount of plastic is introduced in substantially plastic condition, whereupon at least one moveable element to be called a slide is moved at least partly into the respective mold cavity while compressing and/or displacing at least a part of the plastic, while the speed of

movement of the at least one slide is so high that adiabatic heat development occurs in the plastic, such that the plastic becomes more liquid, at least its viscosity is decreased.

Claim 11. (original): A method according to claim 10, wherein, prior to the introduction of the plastic into the mold cavity, the at least one slide is set at a passage distance, determined by the distance between one end, leading in the direction of movement, of the respective slide and an oppositely located wall part of the mold cavity, which distance is set on the basis of the melt of the plastic to be used in the mold cavity.

Claim 12. (original): A method according to claim 11, wherein said passage distance is enlarged when using a plastic with a higher melt.

Claim 13. (currently amended): A method according to Claim 10 ~~any one of claims 10-12~~, wherein the or each slide is moved at a speed such that the movement of the respective slide takes place in, at most, approximately 20% of the total cycle time of a manufacturing cycle, determined by the time between the closure of the mold and the extraction of a ready product.

Claim 14. (original): A method according to claim 13, wherein said movement of the or each slide is carried out in less than 10%, in particular in less than 5% and preferably in less than 3% of the total cycle time.

Claim 15. (currently amended): A method according to Claim 10 ~~any one of claims 10-14~~, wherein the closing pressure for the mold is smaller than the conventional injection molding apparatuses for the same products of the same material.

Claim 16. (currently amended): A method according to Claim 10 ~~any one of claims 10-15~~, wherein the material is introduced into the mold cavity with a filling pressure of less than 350 bars.

Claim 17. (currently amended): A method according to Claim 10 ~~any one of claims 10-16~~, wherein as material a plastic is introduced, in particular a thermoplastic plastic, while the feed pressure and speed are such that at least partial solidification of the plastic occurs during introduction of the plastic, while the or each slide is brought into the mold cavity such that therein adiabatic heat development takes place such that the plastic returns to a liquid

condition, at least that its viscosity is reduced such that by moving the slide and, optionally, applying hold pressure, the respective mold cavity is completely filled.

Claim 18. (original): A method according to claim 17, wherein in the or each mold cavity overflow spaces are provided which are filled with the plastic, wherein the parts filled in the overflow spaces are used as engaging elements for extracting a product formed in the respective mold cavity.

Claim 19. (original): The use of an injection mold with at least one slide, while, during an injection molding cycle, the or each slide is moved in a mold cavity of the mold at a speed such that adiabatic heat development occurs in a mass introduced into the respective mold cavity.

Claim 20. (currently amended): A product, formed in an apparatus according to Claim 1 ~~any one of claims 1-9~~, with a method wherein in the mold cavity an amount of plastic is introduced in substantially plastic condition, whereupon the slide is moved at least partly into the respective mold cavity while compressing and/or displacing at least a part of the plastic while the speed of movement of the slide is so high that adiabatic heat development occurs in the plastic, such that the plastic becomes more liquid, at least its viscosity is decreased ~~according to any one of claims 10-18~~ or by use of a mold with at least one slide, while, during an injection molding cycle, the or each slide is moved in a mold cavity of the mold at a speed such that adiabatic heat development occurs in a mass introduced into the respective mold cavity ~~according to claim 19~~.